

Eureka Historic Smelter Site

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Presentation Overview

- ◉ History of Smelting Operations
- ◉ Recent Sampling Results
- ◉ Proposed Next Actions
- ◉ Community Issues

Historic Smelting in Eureka



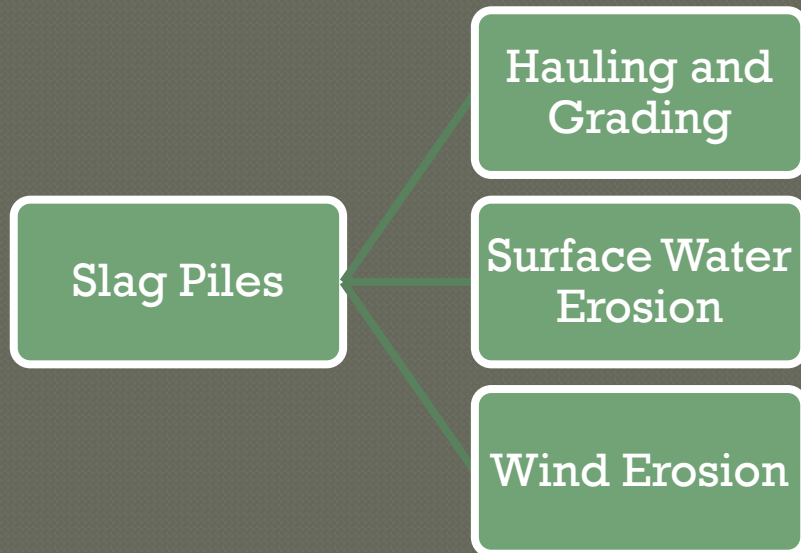
LOUIS MONACO, Photo.

Eureka, Nev.

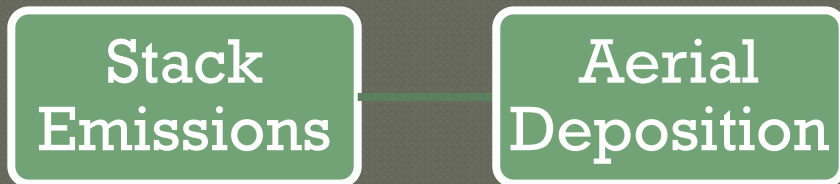
- Eureka was a major source of lead production from 1870 to 1885, continuing through 1910
- Lead-silver ore from Ruby Hill SW of town
- Ore crushed and loaded into blast furnace with charcoal as a heat source and melted to a molten liquid state.
- Lead-silver bullion drained off lower layers
- Upper layers disposed of as “slag”
- By 1873 17 smelters at 8 furnace site locations in town were operating
- 225 thousand tons of lead produced from 1869 through 1883



Sources and Migration Routes Lead and Arsenic



- Higher Concentration
- Current and Historical
- Discrete areas
(property by property)
- Surface and at Depth



- Lower concentration
- Historical
- Broader Areas
- Surface (likely less than 6 inches)

Recent Soil Sampling Results

- 38 surface samples near slag piles and next to roadways
- Sieved for bioavailable finer soil fraction
- Comparison levels – Recommended for additional investigation or actions
 - Lead at 400 parts per million (ppm)
 - Arsenic at 60 ppm

Recent Soil Sampling Results

● Results - Lead

- 10 samples below 400 ppm
- 20 samples between 400 and 5,000 ppm
- 8 samples above 5,000 ppm

● Results – Arsenic

- 5 below 60 ppm
- 24 between 60 and 600 ppm
- 9 above 600 ppm

Recent Soil Sampling Results

- Multiple locations across town exceed comparison levels
- Broad range of concentrations from below to well above comparison levels
- Levels and distribution of lead and arsenic indicate potential for human health impacts
- Additional data needed to prioritize properties for potential future actions

Proposed Next Actions

● Immediate Objectives

- Evaluate potential human health impacts
- Determine extent and magnitude of potential exposures on individual properties
- Provide information on how to reduce exposure
- Rank properties for additional actions based on potential human health impacts

● Free Blood Lead Level Testing - Tomorrow

● Free Soil Sampling – August/September

Community Issues

● Why now?

- Based on the recent focus nationally on lead smelter sites and revision of the CDC blood lead level guidelines, NDEP has determined that potential human effects of historic lead smelting in Eureka warrant additional evaluation.

● Will I or the community have to pay to clean this up?

- No. Any sampling and cleanup would occur at no cost to the community. At this point funding is being provided through EPA.

● Will the town be dug up?

- Portions of the town may be handled in different ways depending on priority, funding, and access. Similar sites have either been excavated or covered.

Community Issues

● Will Eureka turn into a Superfund Site?

- EPA is using Superfund authority to assist with short-term actions. More information is needed to determine whether this site belongs on the National Priority List. The State of Nevada seeks to manage sites in the most effective way possible taking into account community input.

● What about arsenic?

- Elevated concentrations of lead and arsenic appear co-located. Actions to address lead will likely address arsenic levels of concern.
- Unlike lead, measurement of arsenic levels in the body is not as well correlated with lower level, more sensitive health effects.

How to Stay Informed

- ◉ NDEP and EPA have websites at
 - www.ndep.nv.gov/eurekasmelter
 - www.epaosc.org/eurekasmelter
- ◉ Please fill out a card in the back if you would like to receive information
- ◉ Your ideas?
 - Local paper
 - Other newsletters